

Electricity distribution: A glimpse of what the future could be.

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My sense is that South Africans are utterly exhausted. So, to give readers a break, this month I am sharing something very different. A real-life story from the ground up.

A former Eskom engineer, his wife and two engineering sons (the Bosch family) have developed a practical example of how electricity distribution in South Africa will change over the next few years.

The engineer-father started working on the maintenance and administration of electricity distribution systems 30 years ago when Eskom embarked on its mass electrification programme of 350 000 houses a year. Eskom made losses on these programmes and then outsourced the management of these to private companies. The father began a family business, contracting his services to Eskom in Hammanskraal, north of Pretoria. The losses were turned around and the services became profitable. What was the secret of their success?

- 1 Firstly, they involved local communities. No, not local politicians. The real local community, the shebeen and funeral parlour owners, the taxi bosses and spaza shop owners. Block by block, those who were leaders in that area – a chief or a chief's son, a church leader or a community organiser – anyone of stature or credibility. These community members received nothing and all they were asked to do was to support the delivery of electricity services in their area.
- 2 Secondly, they rendered the service. If the power went out, they got there and fixed it, no matter the time of day. One night in the early 90s, the couple's eldest son, who was a mere baby, was sleeping in the bakkie; Ma was holding a search light for Dad who was up on a pole in Hammanskraal to attend to an electricity outage. Four men walked up with AK47s. Remember, it was still quasi-civil war back then. Ma dropped the light, introduced herself to the four men, shook their hands and explained they were busy fixing the power. The four men laughed, wished them well and went on their way. The power was restored.

The result of community buy-in and service delivery was that households paid for their power, theft of equipment was minimal and company vehicles weren't stolen or hijacked. Well, no, not quite true. A brand-new Nissan bakkie was stolen before it had company signage on. Word went out and the bakkie was recovered.

One door closed, another one opened.

When demands for 'a cut' emerged in 1998, the family didn't renew their Eskom contract and moved on to private sector work. They managed the distribution of electricity for a bank across all its retail properties. Later, the same for a large property company (it was before the days of REITs). It proved to be a very successful enterprise, saving the bank and the landlords many millions.

It proved there was legitimate money to be made in the administration and management of electricity distribution. That is the opportunity the family saw and exploited. So much so that the company was sold for a tidy sum of money. The family then had the option to emigrate to Australia or New Zealand. Or they could put the money into electricity distribution infrastructure in the Free State. They chose the latter.

Helping local government.

They made a very promising start in the Free State in Mafube, a municipality covering Frankfort, Cornelia, Villiers and Tweeling in the north-eastern Free State. Mafube municipality had to pay an average R5 million a month to Eskom and had an average income of only R1,7 million a month. Meters were not installed or repaired (and in numerous cases, simply bypassed or just partially billed), there was no money for petrol or diesel to go out and attend to problems, and there was no capital for replacement parts or equipment. So, Mafube municipality contracted the family business to take over electricity distribution in the four small towns.

About R100 million was invested in infrastructure, staff were trained and re-trained to the desired standards (YouTube helped a lot), and custom-made technology was deployed. Long story short: there are 12 000 clients (households and businesses) and only 65 have been cut off over 12 years for non-payment and the subsequent debt written off. I will write that again: out of 12 000 clients, only 65 were cut off over 12 years. If people receive effective services and are treated decently, they pay for the service.

Take a step back and think about the basics: who will handle the distribution of electricity better? A local government busy with politics, conflicting priorities and patronage, or a specialist company focused on distribution only? Keeping customers happy with prompt and proper service, maintaining infrastructure, managing debtors, and training personnel properly – in theory local governments can do this, in practice most don't.

For the Mafube municipality, electricity distribution went from a huge cash outflow and liability to positive cash flow and better service delivery. The municipality is now receiving a royalty from the distribution of electricity. Load-shedding is reduced by about 17% from what Eskom requires, thanks to solar power. Water and sanitation works are excluded from load-shedding. As a result, a large agricultural co-op decided to expand its business in town, creating 120 new jobs. Small businesses are flourishing again. Property prices have risen. Plans are afoot to build two bigger solar plants and entice businesses from other towns to relocate to Mafube.

As a late departed friend would have said, what is not to like?!

Corruption trips more progress.

The success of Mafube led to a second project, this time in Harrismith in the eastern Free State. The second project was literally 10 times bigger than the Mafube system. Again, there was a turnaround. Again, requests for 'a cut' emerged. Again, the family withdrew. That municipality is one of Eskom's biggest debtors today.

In Harrismith the ANC lost control of the town council in the 2021 elections. In Mafube it retained a comfortable majority. There is political advantage in successful service delivery.

From consumers to owners.

A next chapter in the Mafube story involves plans to build two large solar farms and then sell ownership of them to electricity consumers. This can be done via voluntary extra payments on monthly electricity bills. The principle is the same – involve the local community, but now extend it to ownership.

The family is now looking for a specialist company that can do the management and administration of many shareholders slowly buying their shares through small monthly contributions. (If any readers can help, please let me know.)

So what?

- Electricity distribution does not have to be a drain on the fiscus.
- With proper management and using available new technology, even the smallest and poorest municipality

can run distribution and generate a surplus. There is no reason for any municipality to run up huge electricity debts.

- A proven alternative is a decentralised and localised operation free from political control and corruption that provides proper services and involves the community.
- Citizens want electricity, will pay for it, and will help to protect the infrastructure.
- The benefit of using a private company is that the cost of infrastructure does not have to come from public funds – it comes from private capital.
- All our electricity attention is currently focused on load-shedding. But distribution is the next area of crisis in electricity, as it has already become in some municipalities.
- Just like electricity generation, the distribution model will also change – by choice or by default, it will change. Better to do it by choice and design. Mafube points the way.